

इंटरनेट

मानक

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IS 12268-1 (1987): Automatic Steam Traps for Marine Use,
Part 1: Glossary of Terms [TED 19: Marine Engineering and
Safety Aids]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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*Indian Standard*SPECIFICATION FOR
AUTOMATIC STEAM TRAPS FOR MARINE USE

PART 1 GLOSSARY OF TERMS

1. Scope — Gives definitions of the major technical terms and expressions used to describe an automatic steam trap for use with marine heat exchangers and marine boilers. Definitions relate to dimensions, pressure, temperature and flow rate as well as their corresponding symbols and units.

2. Glossary of Terms

2.1 Automatic Steam Trap — Self-contained valve which automatically drains the condensate from the steam-containing enclosure whilst remaining tight to live steam or, if necessary, from process point of view allowing steam to flow at a predetermined rate.

2.2 Dimension

No.	Term	Symbol	Unit	Definition
2.2.1	Nominal size	DN	—	Numerical designation of size which is common to all components in a piping system other than components designated by outside diameter. It is a convenient round number for reference purposes only and is loosely related to manufacturing dimensions. In any case, the nominal size DN cannot be subject to measurement and shall not be used for purposes of calculations.

2.3 Pressure

No.	Term	Symbol	Unit	Definition
2.3.1	Nominal pressure	PN	—	Numerical designation which is a convenient number for reference purposes. All equipment of the same nominal size (DN) designated by the same PN number shall have the same mating dimensions. The permissible working pressure depends upon the material, the design and the working temperature, and shall be selected from the pressure/temperature rating tables in the relevant Indian Standard.
2.3.2	Maximum allowable pressure	PMA	MPa	Maximum pressure that the shell of the steam trap can withstand permanently at a given temperature.

Note — 0.1 MPa = 1 bar \approx 1 kgf/cm².

No.	Term	Symbol	Unit	Definition
2.3.3	Maximum operating pressure	PMO	MPa	Pressure for which a steam trap is rated by the manufacture. This pressure is normally a function of the limitations related to the internal equipment of the steam trap.
2.3.4	Operating pressure	PO	MPa	Pressure measured at the inlet of the steam trap under operating conditions.
2.3.5	Operating back pressure	POB	MPa	Pressure measured at the outlet of the steam trap under operating conditions.
2.3.6	Maximum operating back pressure	PMOB	MPa	Maximum permissible pressure at the outlet of the steam trap allowing correct functioning.
2.3.7	Operating differential pressure	ΔP	MPa	Difference between the operating pressure and operating back pressure.
2.3.8	Maximum differential pressure	ΔPMX	MPa	Maximum difference between operating pressure and operating back pressure.
2.3.9	Minimum differential	PMN	MPa	Minimum difference between operating pressure and operating back pressure.
2.3.10	Test pressure	PT	MPa	Pressure applied to the steam trap under test.
2.3.11	Maximum test pressure	PTMX	MPa	Maximum test pressure of the steam trap including its internal mechanism.

2.4 Temperature

2.4.1	Basic temperature	TB	°C	Temperature taken into consideration in the determination of the dimensions of the steam trap.
2.4.2	Maximum allowable temperature	TMA	°C	Maximum temperature to which the shell of the steam trap can be raised permanently at a given temperature.
2.4.3	Maximum operating temperature	TMO	°C	Maximum temperature for which the operation of the steam trap is guaranteed.
2.4.4	Operating temperature	TO	°C	Temperature measured at the inlet of the steam trap under operating conditions.

2.5 Flow Rate

2.5.1	Cold condensate capacity	QC	kg/h	Maximum mass of condensate that the steam trap can discharge in 1 h at a given differential pressure and a temperature of 20°C, the trap being fully open.
2.5.2	Hot condensate capacity	QH	kg/h	Maximum mass of condensate that a steam trap can discharge in 1 h at a given differential pressure and temperature.

Note — 0.1 MPa = 1 bar \approx 1 kgf/cm².

EXPLANATORY NOTE

The purpose of this Indian Standard is to establish precise definitions for technical terms and expressions which are commonly used to describe, with a certain accuracy, an automatic steam trap under operating conditions.

The standard on automatic steam traps for marine use is being published in following 5 parts:

Part 1 Glossary of terms

Part 2 Classification

Part 3 Face-to-face dimensions

Part 4 Performance tests

Part 5 Marking

This part is based on ISO 6552-1980 'Automatic steam traps — Definition of technical terms', issued by the International Organization for Standardization (ISO).